

REMARKS

Claims 1-20 are pending in this application. By this Amendment, the title is amended to overcome the Examiner's objection. No new matter is added. Reconsideration of this application in view of the following remarks is respectfully requested.

The Office Action objects to the title as being not descriptive. The objection is obviated by the above amendments to the title. Thus, it is respectfully requested that the objection be withdrawn.

The Office Action rejects claims 1, 5-9, 11-14 and 18-20 under 35 U.S.C. §103(a)¹ over Norimatsu, U.S. Patent No. 6,415,053, in view of Jayant et al. (Jayant), U.S. Patent No. 7,155,067. The rejection is respectfully traversed.

The combination of Norimatsu and Jayant does not disclose, and would not have rendered obvious, a second calculating unit calculating a new pixel value of a subject pixel based on an original pixel value of the subject pixel, a value determined dependently on a vector magnitude, and a pixel value of an adjustment pixel, the adjustment pixel being one of at least one first candidate surrounding pixel and at least one second candidate surrounding pixel, the at least one first candidate surrounding pixel being positioned in the vector direction, the at least one second candidate surrounding pixel being positioned in an opposite vector direction opposite to the vector direction, the adjustment pixel having a pixel value closest to the original pixel value of the subject pixel among the at least one first candidate surrounding pixel and the at least one second candidate surrounding pixel, and a setting unit setting the new pixel value to the subject pixel, thereby obtaining a new image, as recited in independent claim 1, and similarly recited in independent claims 13, 14 and 20.

¹ Although the Office Action indicates that the rejection is a §102(b) rejection, the rejection is a §103(a) rejection because the claims are rejected over Norimatsu in view of Jayant.

The Office action acknowledges on page 3 that Norimatsu does not disclose the above features, but cites Jayant as allegedly overcoming the deficiencies of Norimatsu. Jayant discloses a method of detecting and enhancing the edges of an image using an adapted SP noise filter (see Fig. 13 and col. 13, lines 53-58). Jayant teaches that the performance of the SP noise filter is adapted based on the image intensity of adjacent pixels that surround a subject pixel (see Fig. 13 and col. 14, lines 1-7). This is accomplished by determining an image intensity median (z) among a subject pixel x_0 and each surrounding pixel in each of four directions (see Fig. 13 and col. 14, lines 6-11). Jayant teaches that the adjusted image intensity x_0' is the median of the maximum intensity found, the minimum intensity found, and the subject pixel's original intensity (see col. 14, lines 18-24). That is, Jayant discloses setting the new pixel value as the median of the maximum intensity, the minimum intensity and the original intensity of the subject pixel, not based on (1) and original pixel value of a subject pixel, (2) a vector magnitude of a differential vector and (3) a pixel value of an adjustment pixel that is positioned in a vector direction of the differential vector. Therefore, the combination of Norimatsu and Jayant does not disclose, and would not have rendered obvious, a second calculating unit calculating a new pixel value of a subject pixel based on an original pixel value of the subject pixel, a value determined dependently on a vector magnitude, and a pixel value of an adjustment pixel, the adjustment pixel being one of at least one first candidate surrounding pixel and at least one second candidate surrounding pixel, the at least one first candidate surrounding pixel being positioned in the vector direction, the at least one second candidate surrounding pixel being positioned in an opposite vector direction opposite to the vector direction, the adjustment pixel having a pixel value closest to the original pixel value of the subject pixel among the at least one first candidate surrounding pixel and the at least one second candidate surrounding pixel, and a setting unit setting the new pixel value to the subject pixel, thereby obtaining a new image, as recited in independent

claim 1, and similarly recited in independent claims 13, 14 and 20. Therefore, independent claims 1, 13, 14 and 20, and dependent claims 5-9, 11, 12, 18 and 19 are patentable over the combination of Norimatsu and Jayant. Thus, it is respectfully requested that the rejection be withdrawn.

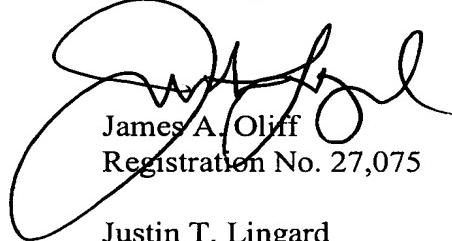
The Office Action rejects claims 2-4 and 15-17 under 35 U.S.C. §103(a) over Norimatsu in view of Jayant, and further in view of Miller, U.S. Patent No. 4,941,191; and rejects claim 10 under 35 U.S.C. §103(a) over Norimatsu in view of Jayant, and further in view of Mancuso et al. (Mancuso), U.S. Patent Application Publication No. 2001/0031097 A1. The rejections are respectfully traversed.

Because claims 2-4, 10 and 15-17 incorporate the features of independent claims 1 and 14, respectively, and because Miller and Mancuso fail to overcome the deficiencies of Norimatsu and Jayant, these claims also are patentable over the applied references for at least these reasons, as well as for the additional features that these claims recite. Thus, it is respectfully requested that the rejections be withdrawn.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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